

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line		: W40 JP Pump NEMA Premium Efficiency Three-Phase		Product code : 14486321
			Catalog # :	02536OT3E256JP-W40
Frame	: 254/6JP	Cooling method	: IC01 - ODP	
Insulation class	: F	Mounting	: F-1	
Duty cycle	: Cont.(S1)	Rotation ¹	: Both (CW and CCW)	
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line	
Altitude	: 1000 m.a.s.l.	Approx. weight ²	: 244 lb	
Protection degree	: IP23	Moment of inertia (J)	: 1.13 sq.ft.lb	
Design	: B			
Output [HP]	25	20	20	20
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	57.6/28.8	28.2	27.4	27.0
L. R. Amperes [A]	374/187	192	186	200
LRC [A]	6.5x(Code G)	6.8x(Code H)	6.8x(Code H)	7.4x(Code J)
No load current [A]	17.0/8.50	8.20	9.10	10.0
Rated speed [RPM]	3535	2935	2945	2950
Slip [%]	1.81	2.17	1.83	1.67
Rated torque [ft.lb]	37.1	35.8	35.7	35.6
Locked rotor torque [%]	200	200	220	229
Breakdown torque [%]	280	260	300	320
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	19s (cold) 11s (hot)	14s (cold) 8s (hot)	18s (cold) 10s (hot)	14s (cold) 8s (hot)
Noise level ²				
Efficiency (%)	25%	90.8	87.6	87.9
	50%	91.0	89.5	89.6
	75%	91.7	89.9	90.1
	100%	91.7	91.9	91.9
Power Factor	25%	0.53	0.54	0.49
	50%	0.77	0.77	0.73
	75%	0.85	0.85	0.82
	100%	0.88	0.88	0.86
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6209 Z C3	Foundation loads		
Sealing	: Without Without	Max. traction		
	: Bearing Seal Bearing Seal	Max. compression		
Lubrication interval	: 20000 h 20000 h			
Lubricant amount	: 13 g 9 g			
Lubricant type	: Mobil Polyrex EM			
Notes				
USABLE @208V 63.7A SF 1.15 SFA 73.2A				
This revision replaces and cancel the previous one, which must be eliminated.		These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
(1) Looking the motor from the shaft end.				
(2) Measured at 1m and with tolerance of +3dB(A).				
(3) Approximate weight subject to changes after manufacturing process.				
(4) At 100% of full load.				
Rev.	Changes Summary		Performed	Checked
Performed by				
Checked by			Page	Revision
Date	14/04/2022		1 / 21	

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



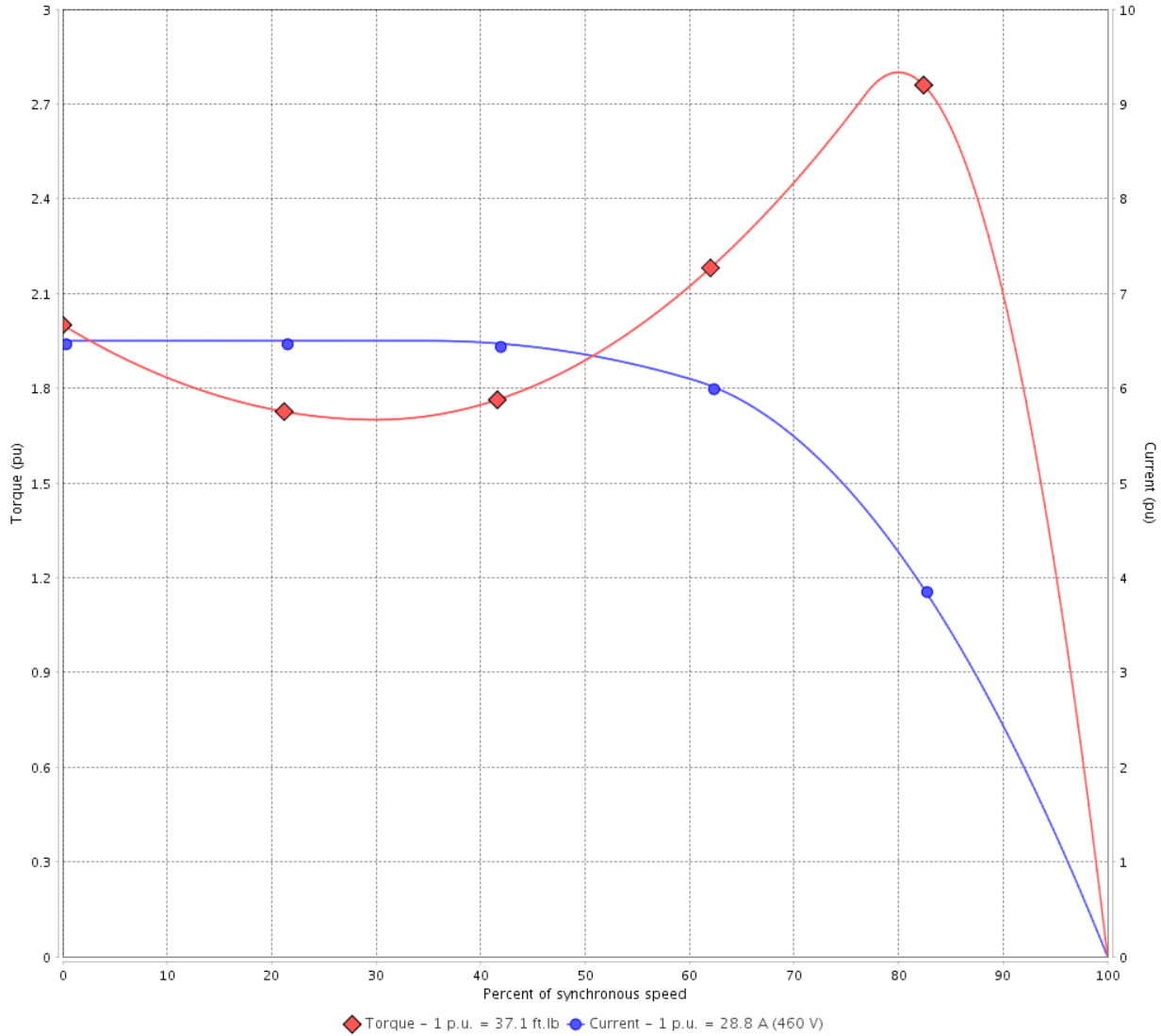
Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 57.6/28.8 A	Moment of inertia (J)	: 1.13 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 37.1 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 3535 rpm	Design	: B

Locked rotor time : 19s (cold) 11s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 21	Revision
Checked by				
Date	14/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



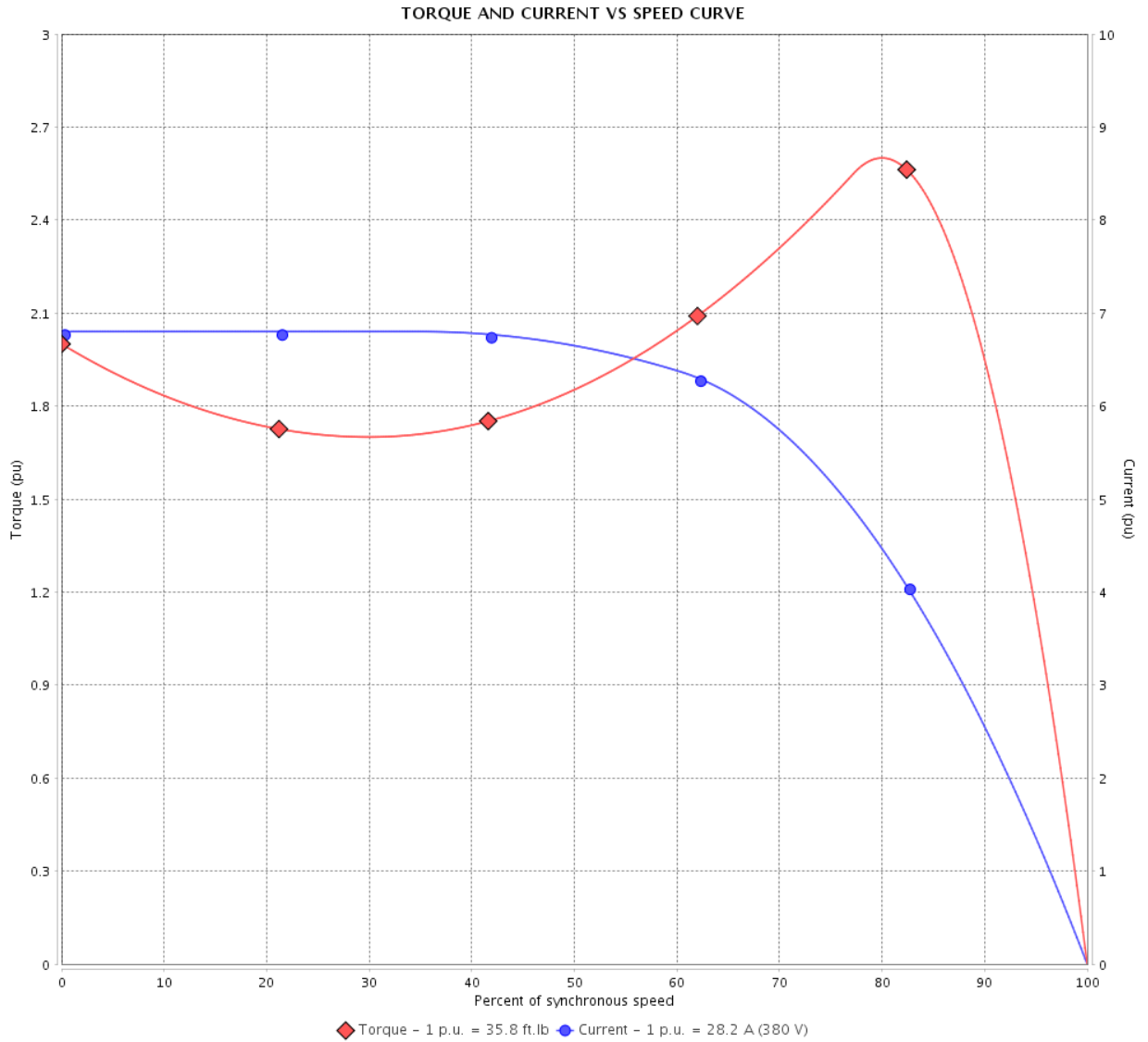
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40



Performance : 380 V 50 Hz 2P IE3

Rated current	: 28.2 A	Moment of inertia (J)	: 1.13 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 35.8 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2935 rpm	Design	: B

Locked rotor time : 14s (cold) 8s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 21	Revision
Checked by				
Date	14/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



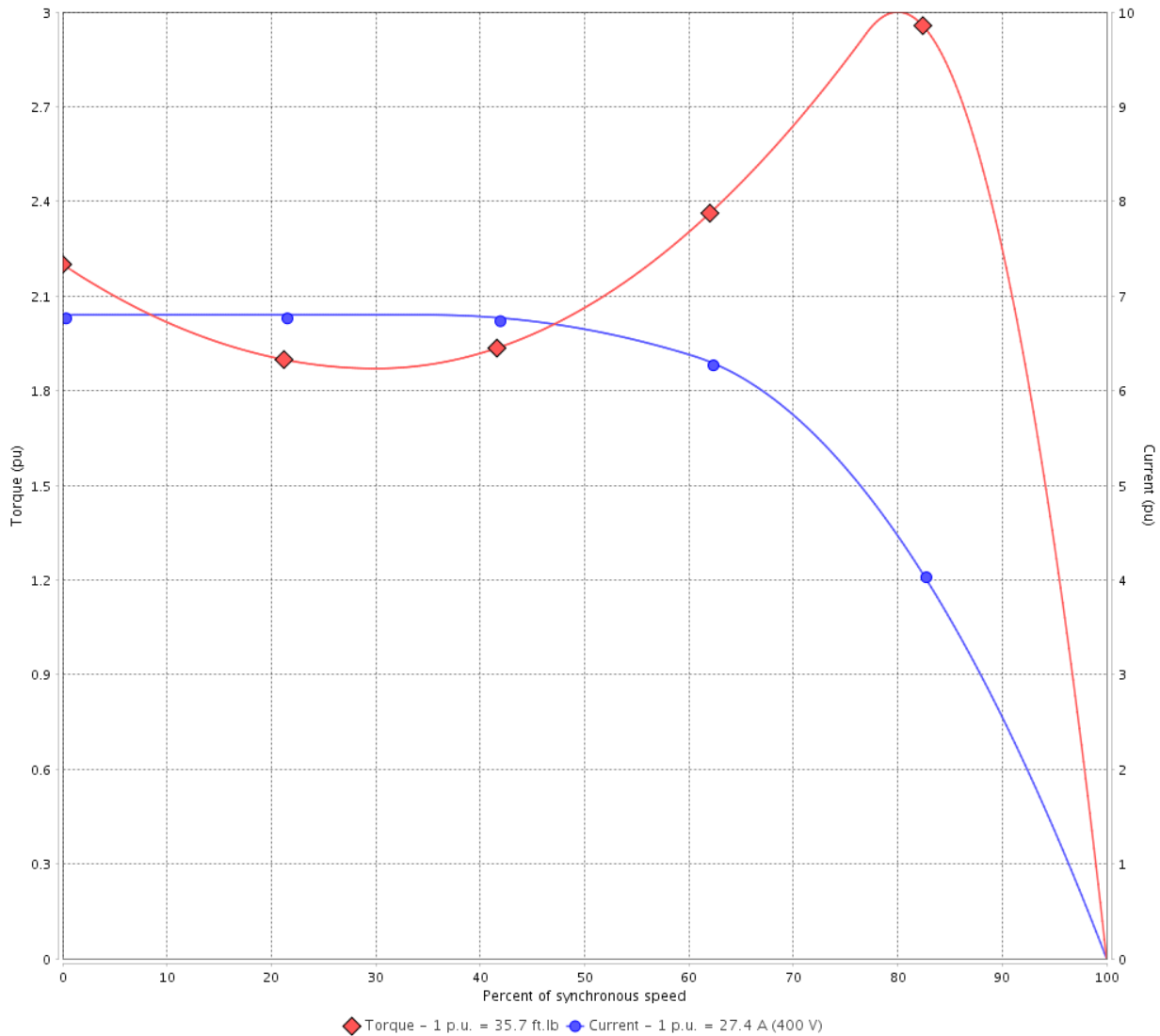
Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 27.4 A	Moment of inertia (J)	: 1.13 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 35.7 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2945 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 21	Revision
Checked by				
Date	14/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



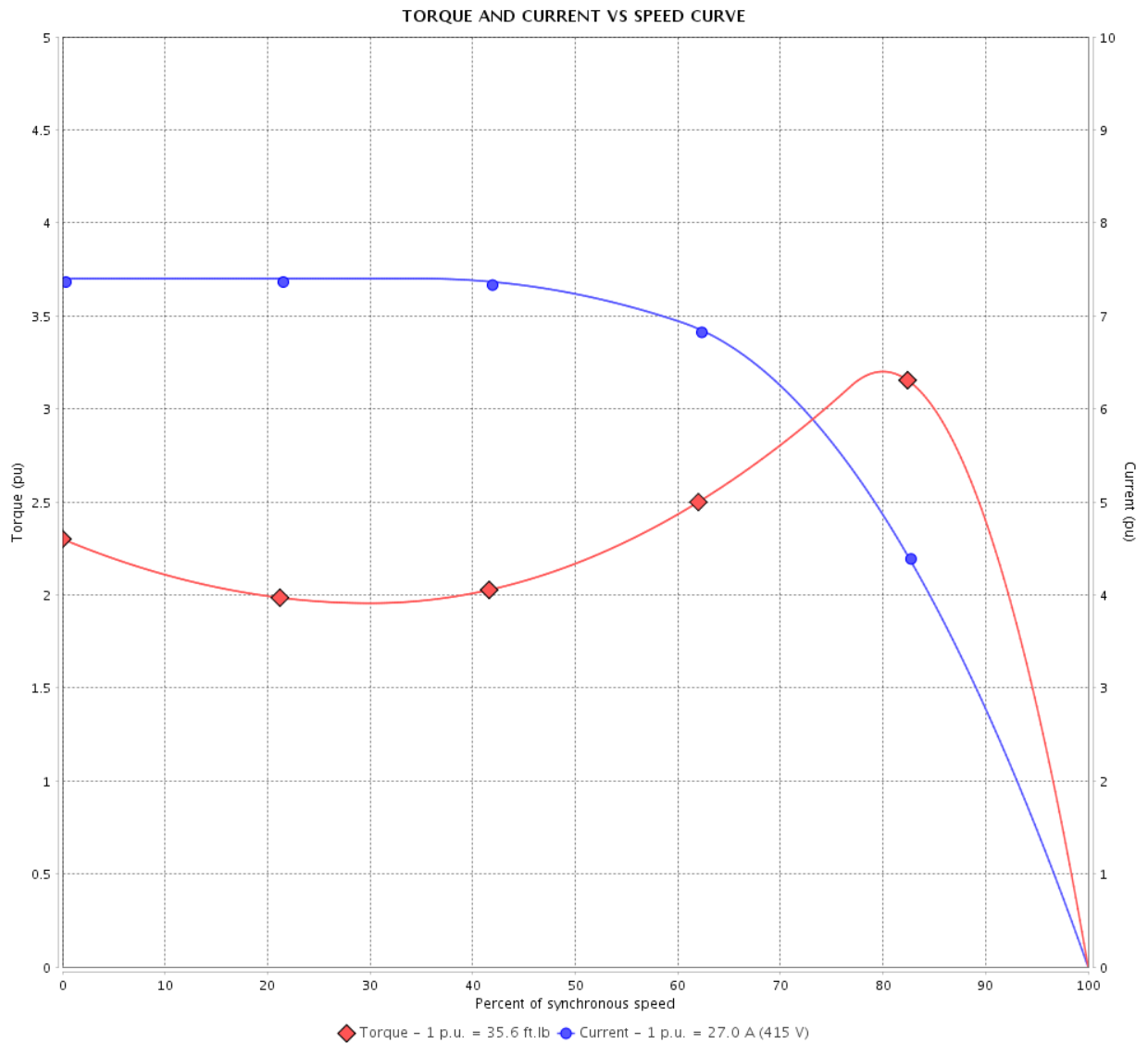
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40



Performance : 415 V 50 Hz 2P IE3

Rated current : 27.0 A
 LRC : 7.4
 Rated torque : 35.6 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 320 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Locked rotor time : 14s (cold) 8s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 21	Revision
Checked by				
Date	14/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

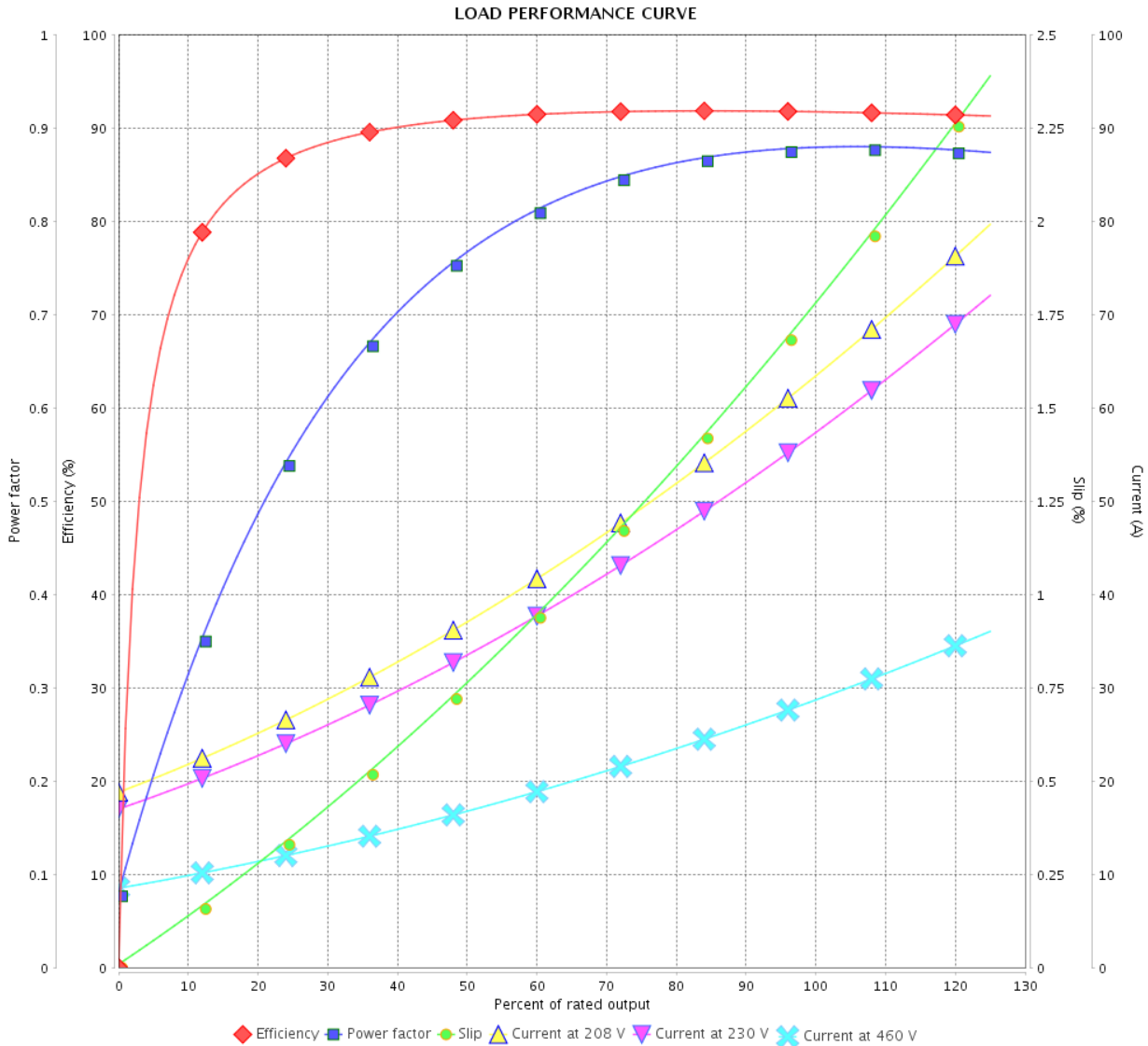


Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40



Performance : 230/460 V 60 Hz 2P

Rated current : 57.6/28.8 A
 LRC : 6.5
 Rated torque : 37.1 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 280 %
 Rated speed : 3535 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 21	Revision
Checked by				
Date	14/04/2022			

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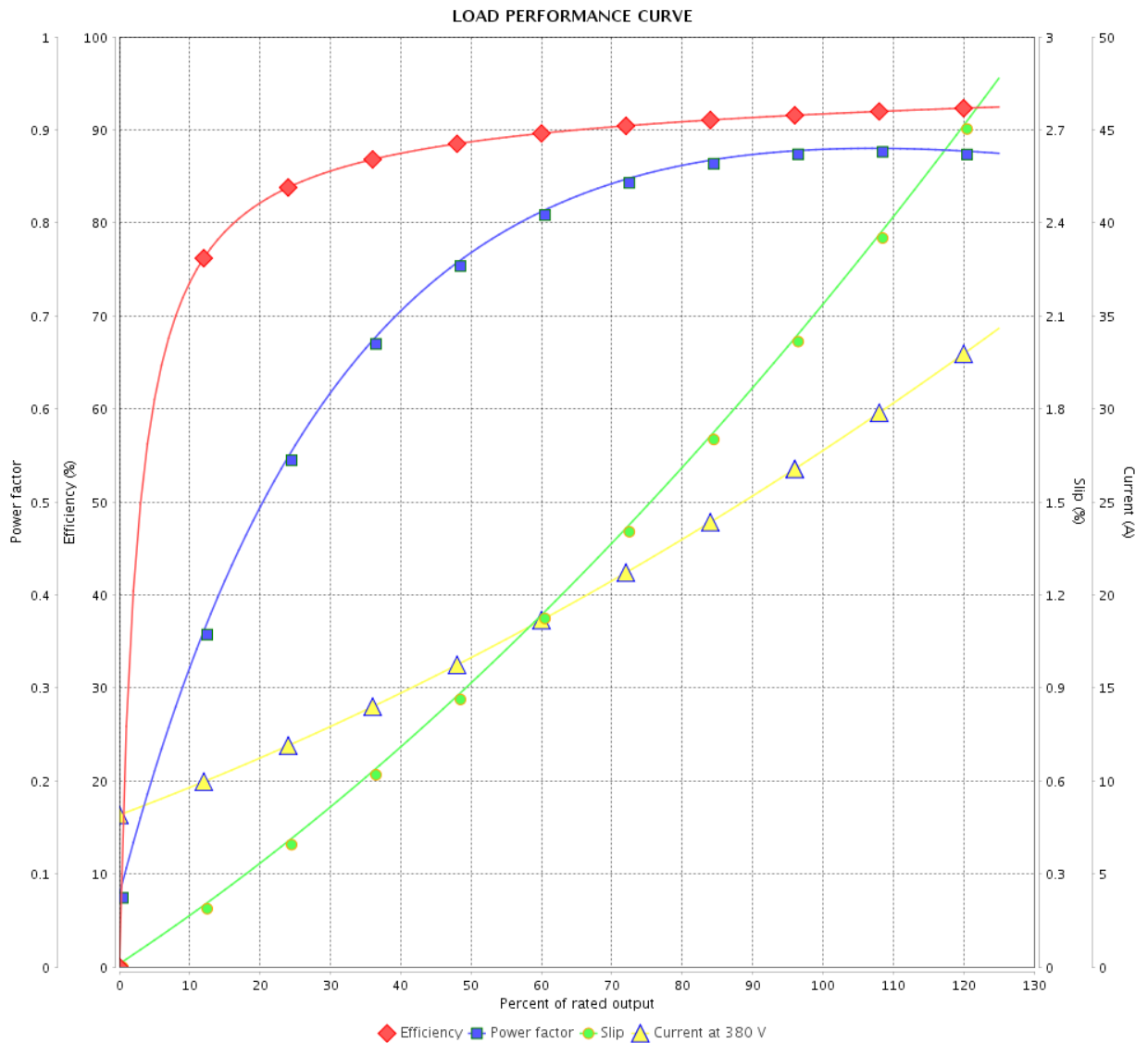


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 28.2 A
 LRC : 6.8
 Rated torque : 35.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 260 %
 Rated speed : 2935 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				
			7 / 21	

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Three Phase Induction Motor - Squirrel Cage



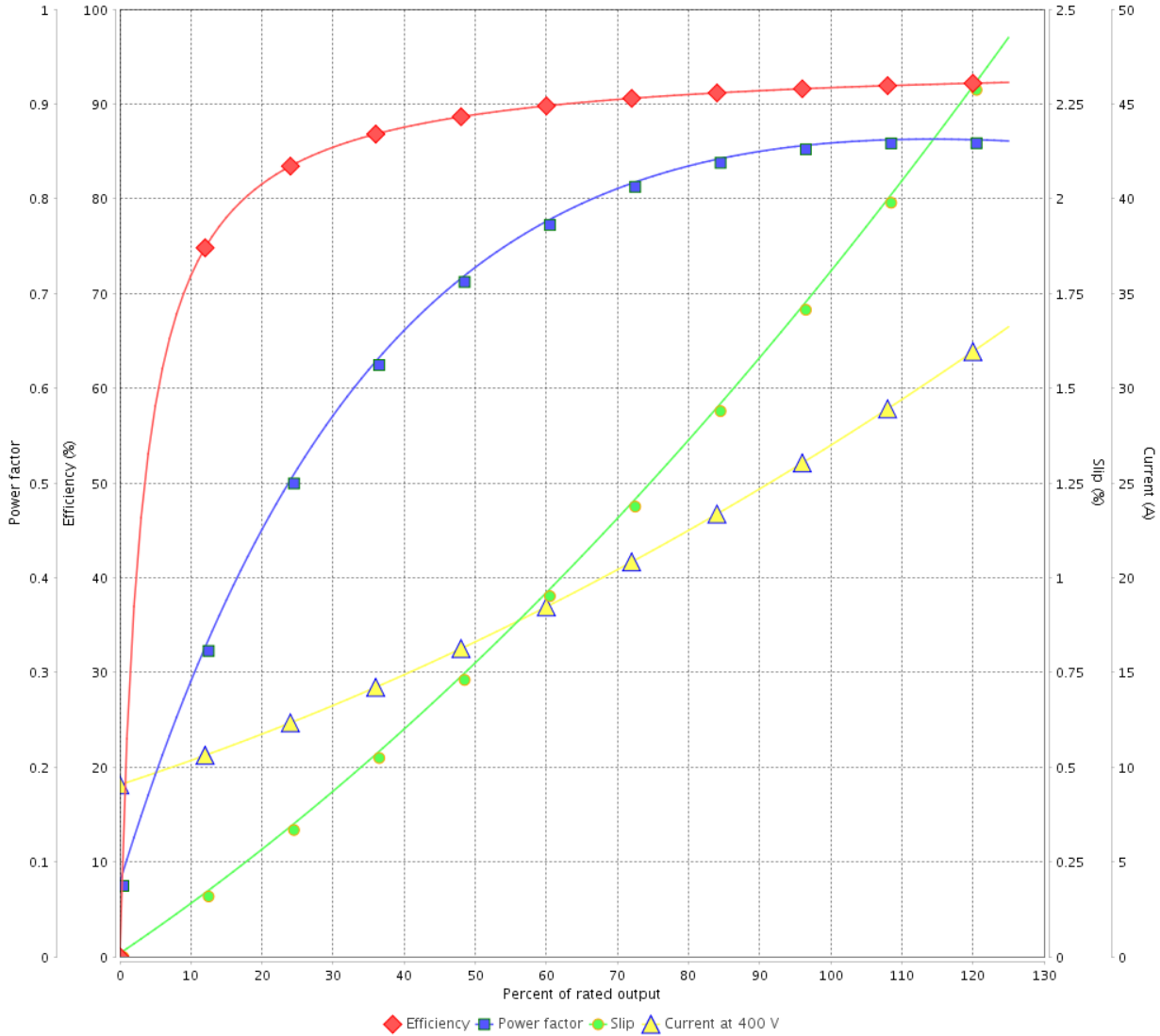
Customer : _____

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 27.4 A
 LRC : 6.8
 Rated torque : 35.7 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 300 %
 Rated speed : 2945 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 8 / 21	Revision
Checked by				
Date	14/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

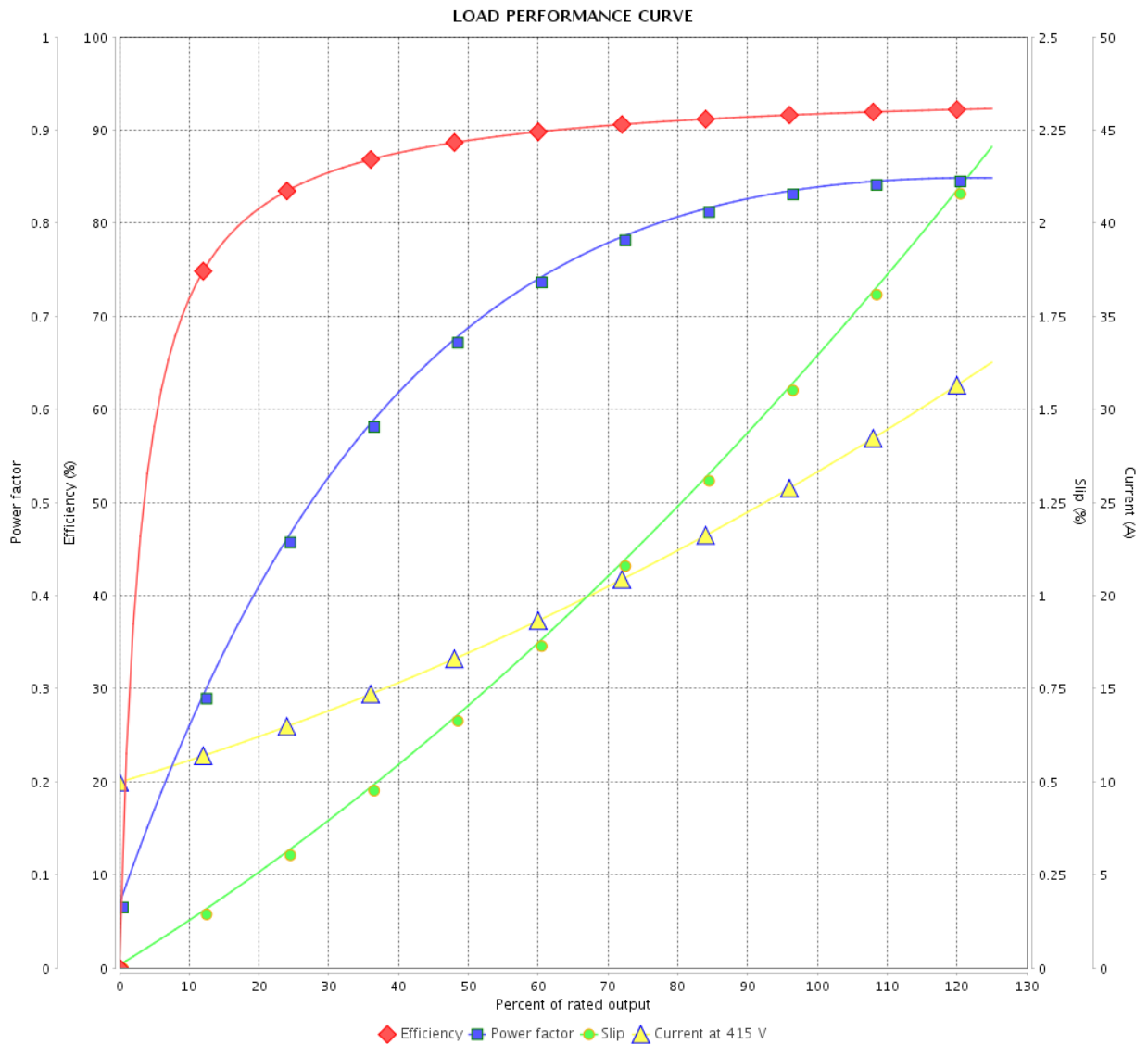


Customer : _____

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40



Performance : 415 V 50 Hz 2P IE3

Rated current : 27.0 A
 LRC : 7.4
 Rated torque : 35.6 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 320 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		9 / 21		
Date		14/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

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Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40

Performance : 230/460 V 60 Hz 2P

Rated current : 57.6/28.8 A
LRC : 6.5
Rated torque : 37.1 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 280 %
Rated speed : 3535 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

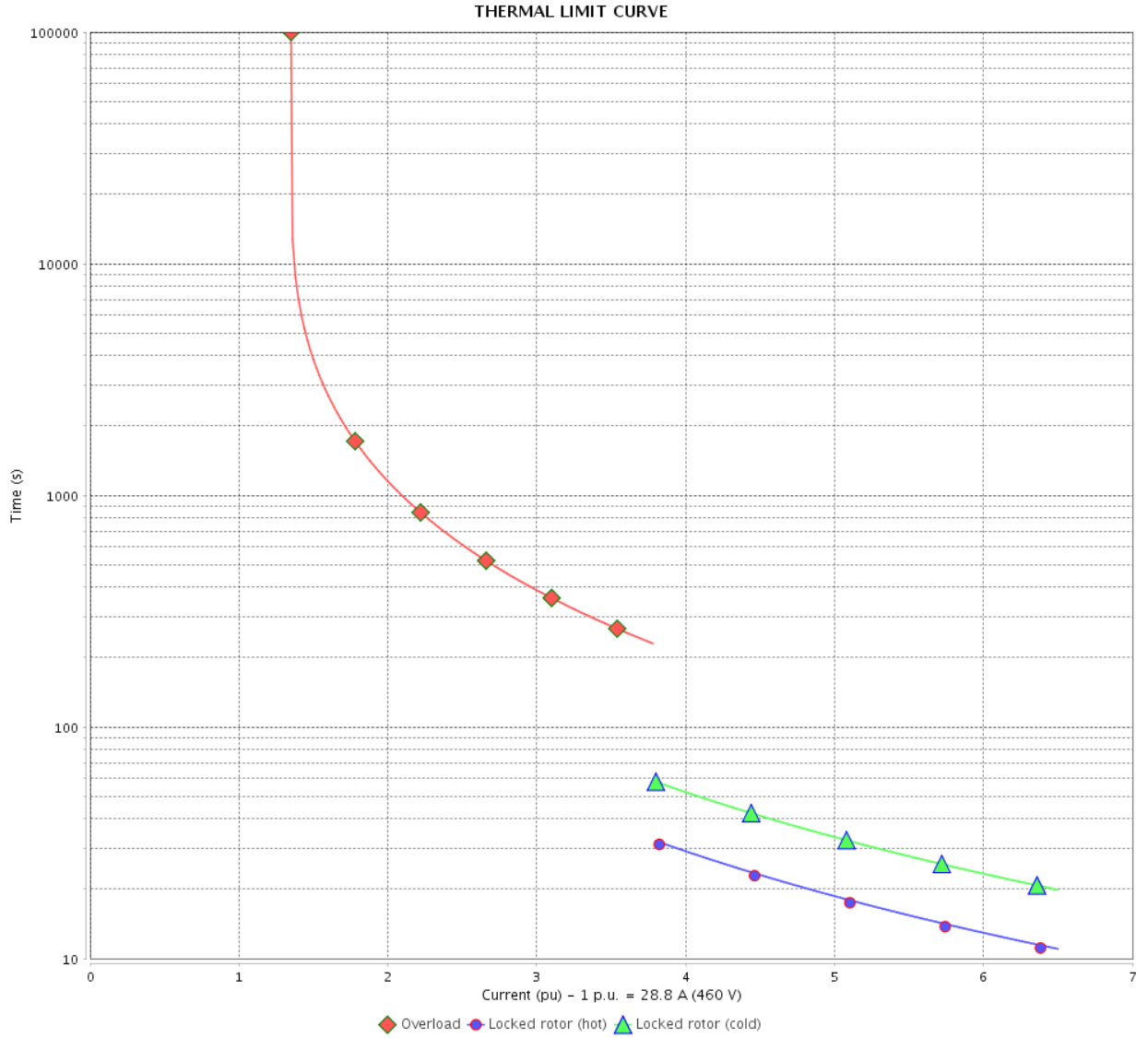
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/04/2022		10 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		11 / 21		
Date		14/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

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Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40

Performance : 380 V 50 Hz 2P IE3

Rated current : 28.2 A
LRC : 6.8
Rated torque : 35.8 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 260 %
Rated speed : 2935 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

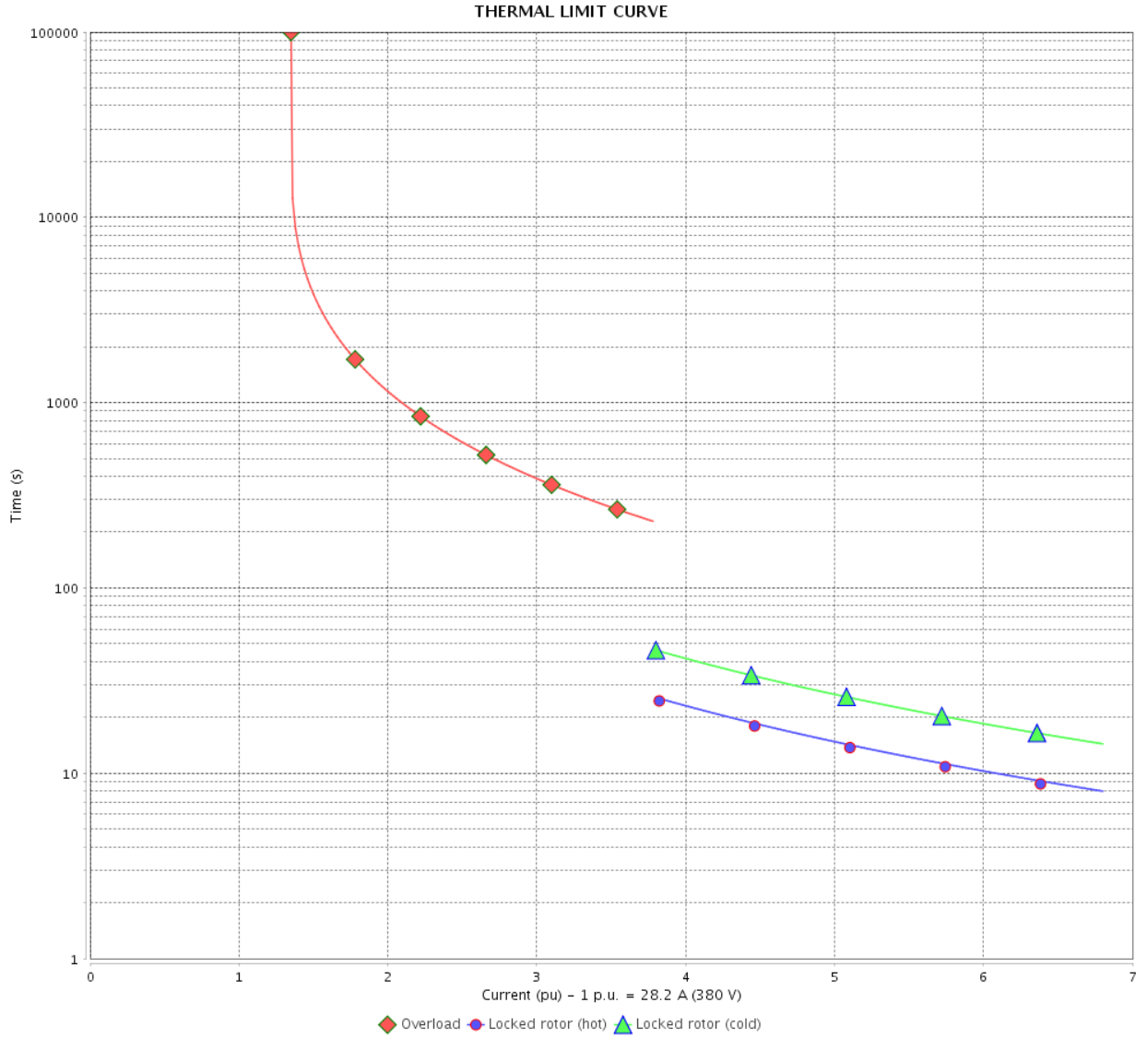
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Performed by				
Checked by			Page	Revision
Date	14/04/2022		12 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 13 / 21		Revision
Checked by				
Date				

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Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40

Performance : 400 V 50 Hz 2P IE3

Rated current	: 27.4 A	Moment of inertia (J)	: 1.13 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 35.7 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2945 rpm	Design	: B

Heating constant

Cooling constant

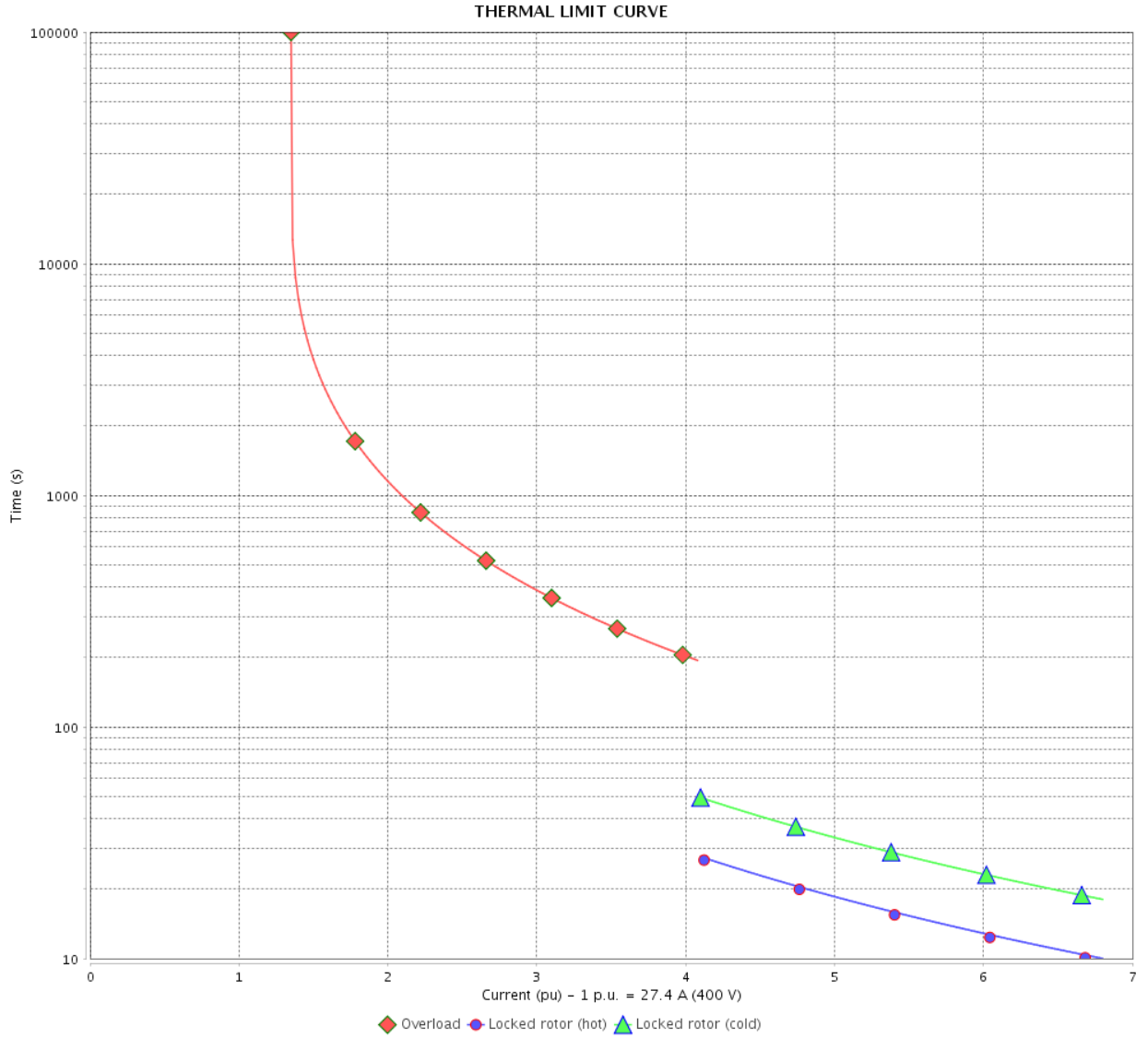
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Checked by			Page	Revision
Date	14/04/2022		14 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		15 / 21		
Date		14/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40

Performance : 415 V 50 Hz 2P IE3

Rated current	: 27.0 A	Moment of inertia (J)	: 1.13 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 35.6 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

Heating constant

Cooling constant

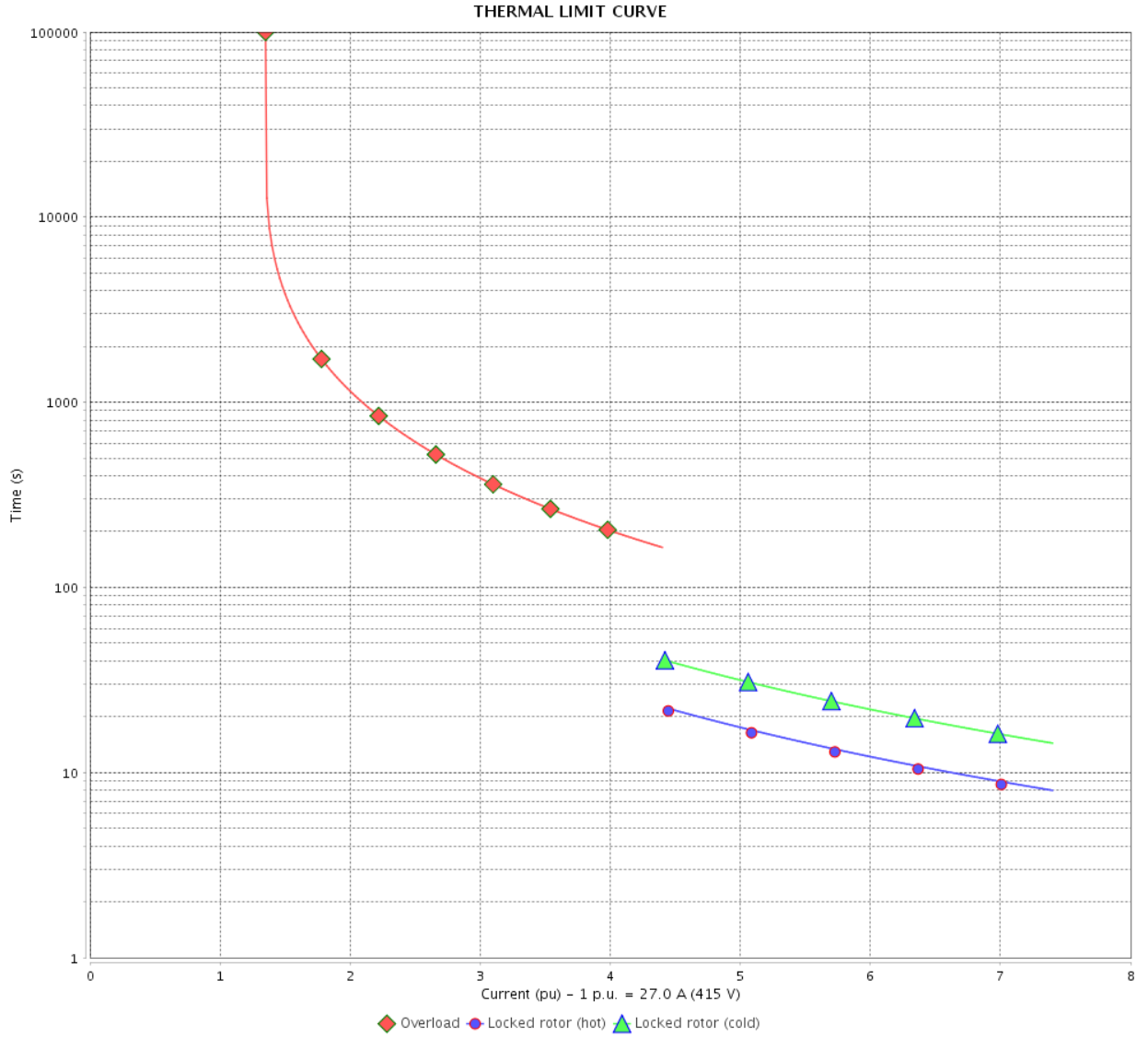
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/04/2022		16 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
			Page	Revision
			17 / 21	

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



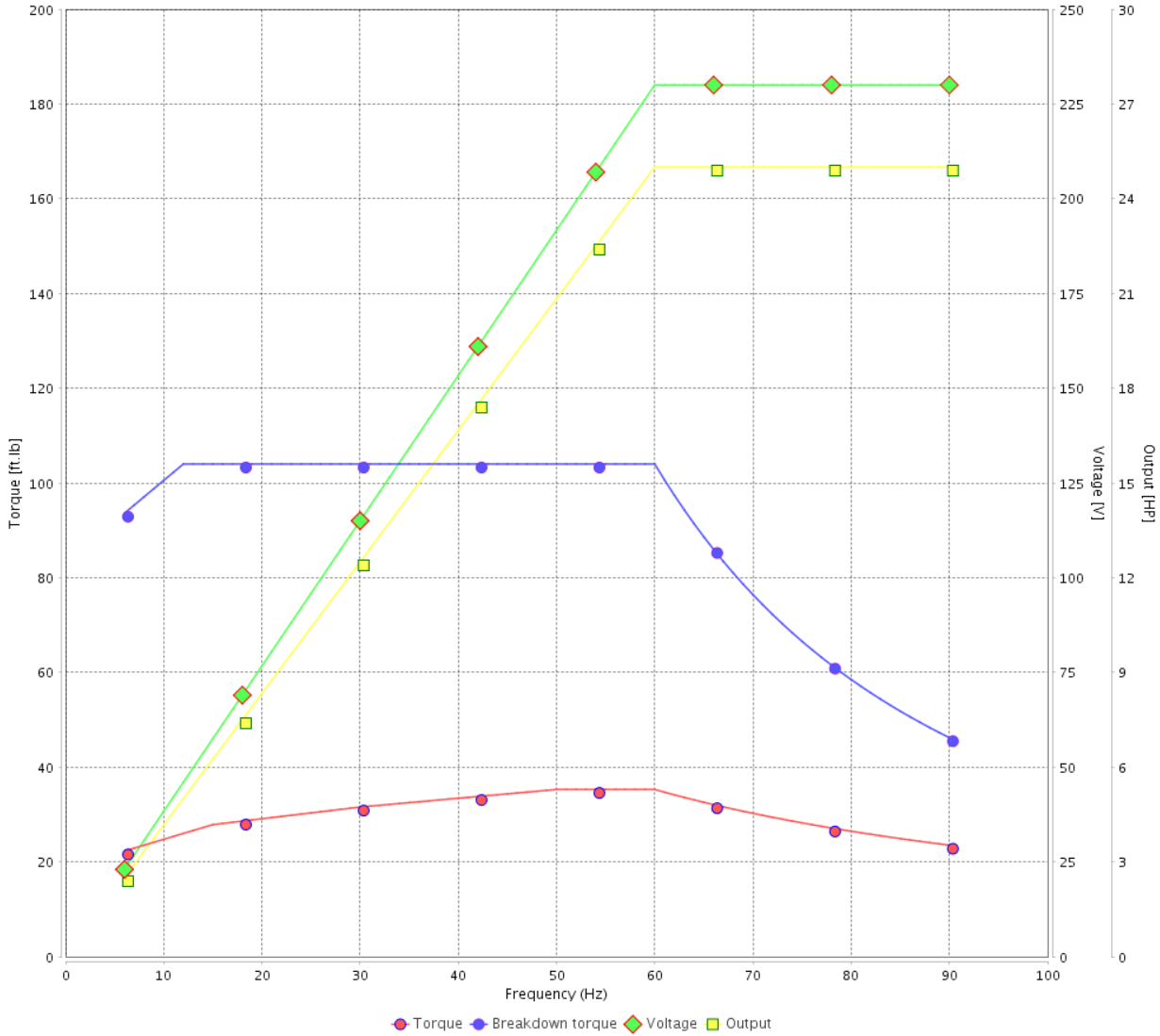
Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 57.6/28.8 A
 LRC : 6.5
 Rated torque : 37.1 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 280 %
 Rated speed : 3535 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 18 / 21	Revision
Checked by				
Date	14/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

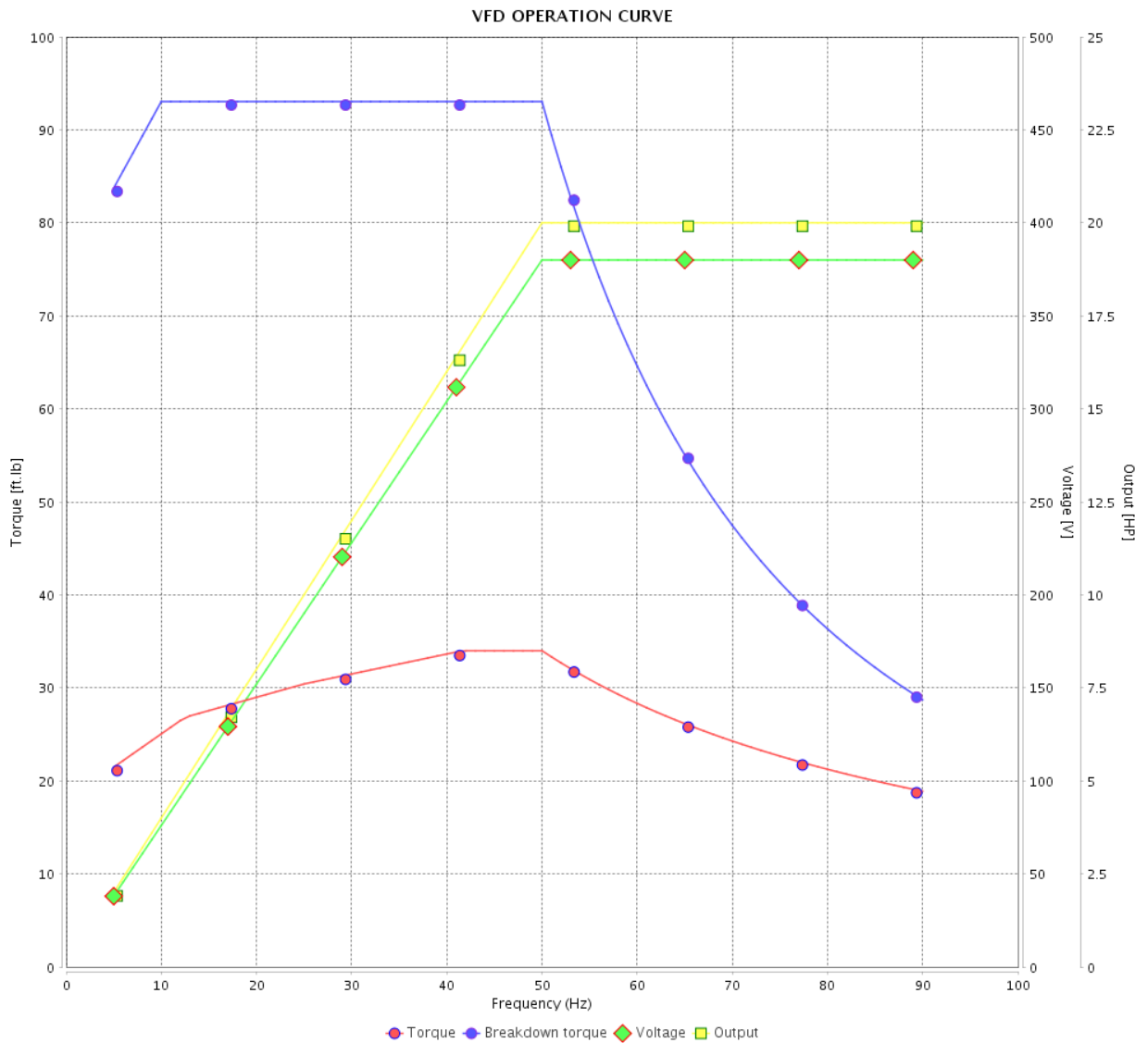


Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 28.2 A
 LRC : 6.8
 Rated torque : 35.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 260 %
 Rated speed : 2935 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		19 / 21		
Date		14/04/2022		

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



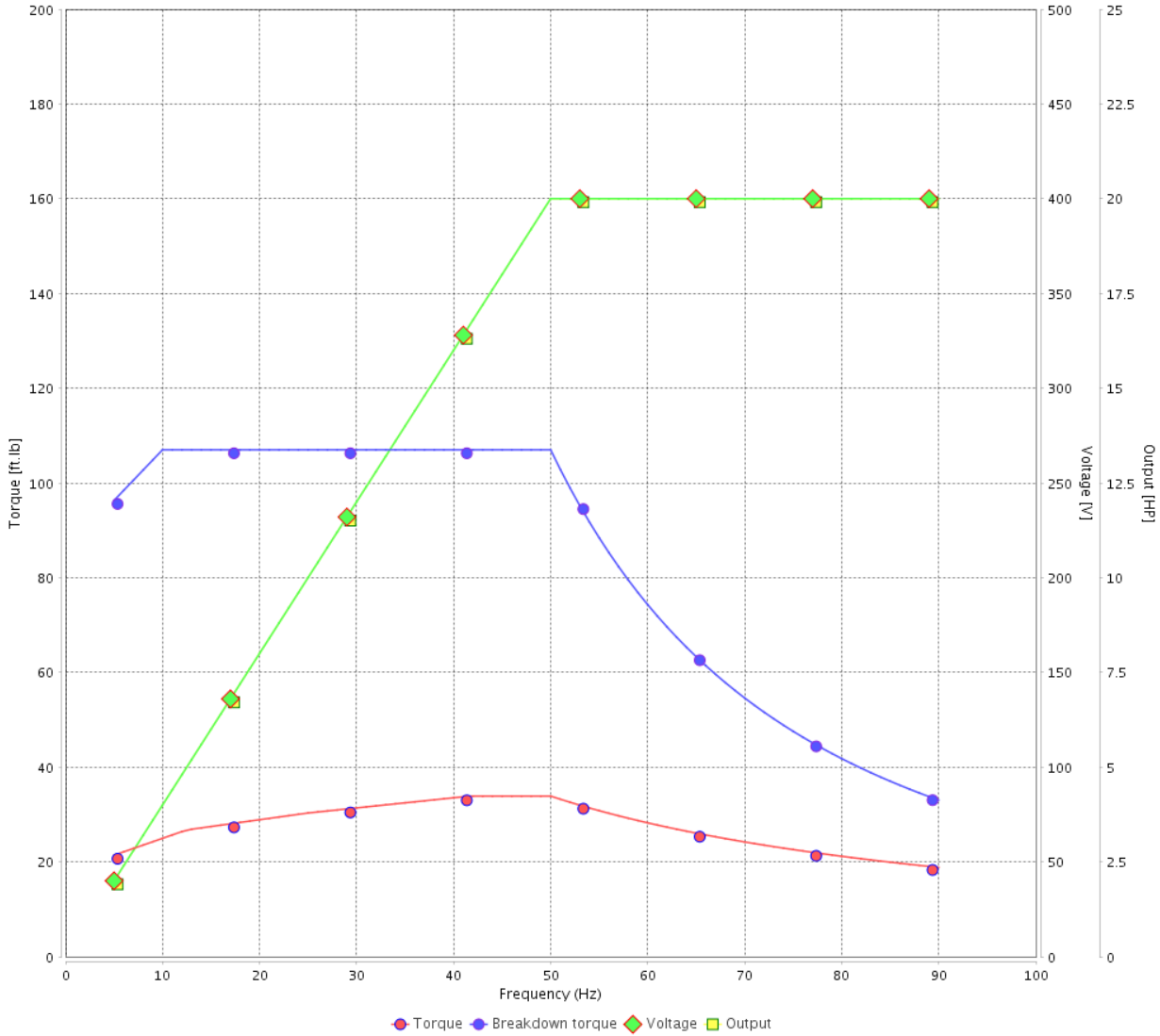
Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14486321

Catalog # : 02536OT3E256JP-W40

VFD OPERATION CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 27.4 A
 LRC : 6.8
 Rated torque : 35.7 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 300 %
 Rated speed : 2945 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 20 / 21	Revision
Checked by				
Date	14/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

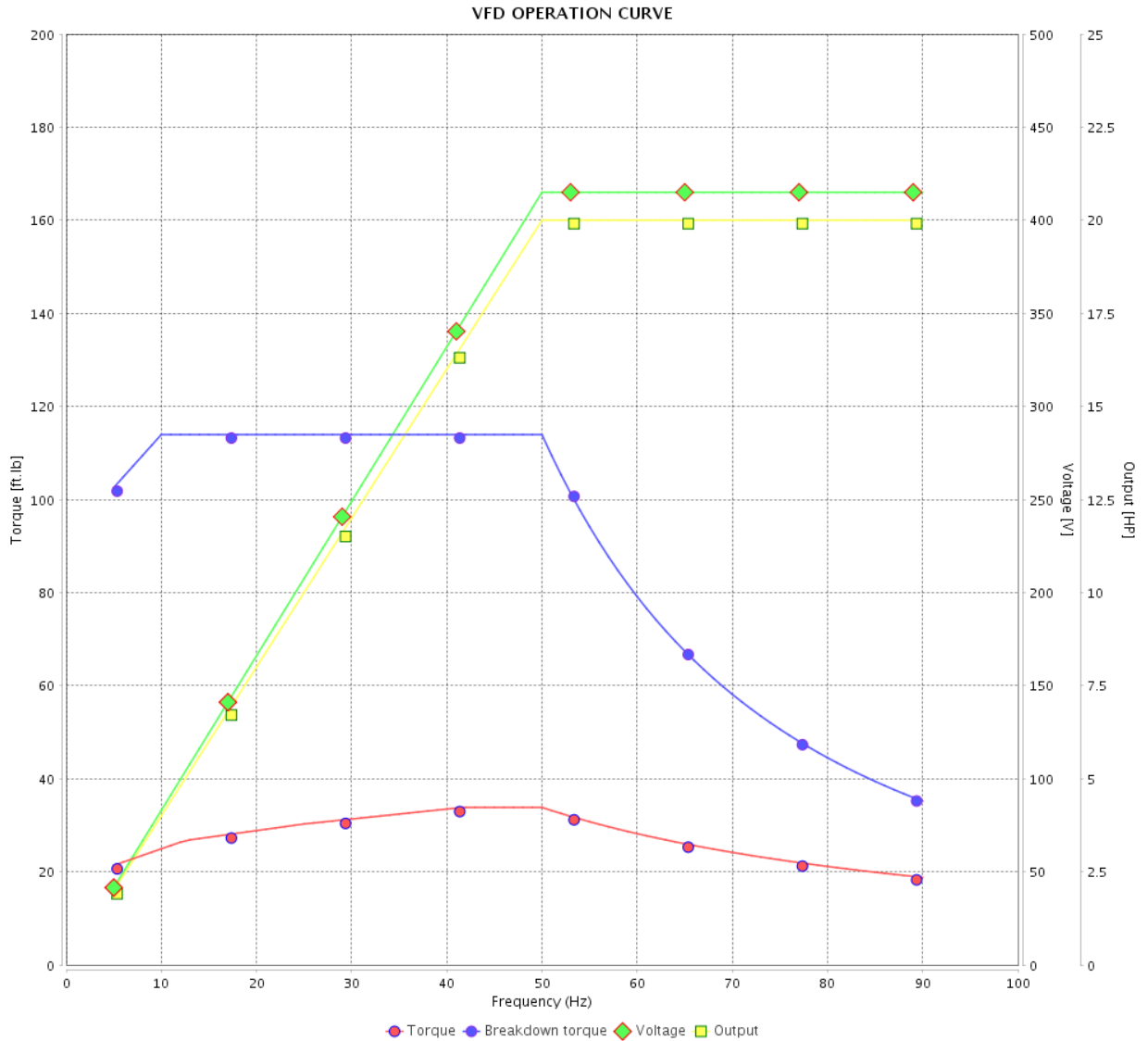


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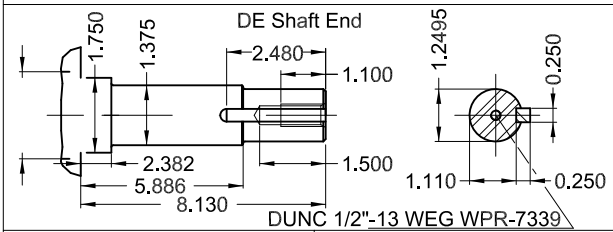
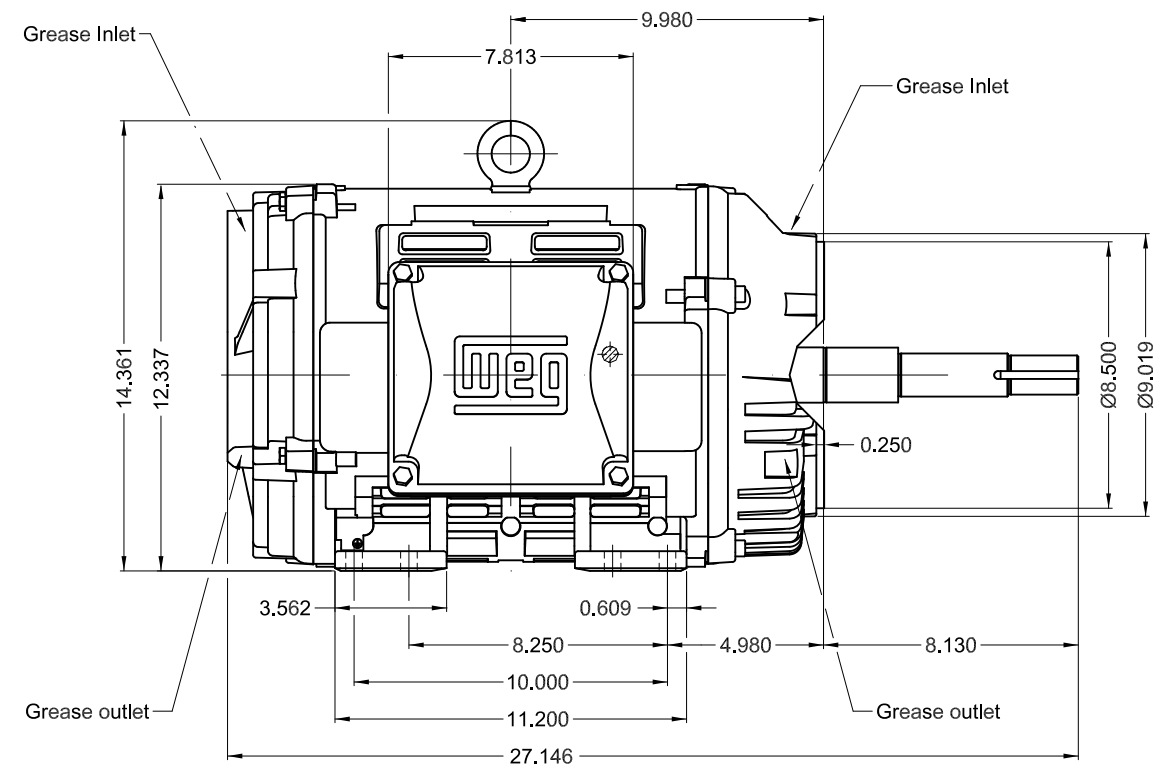
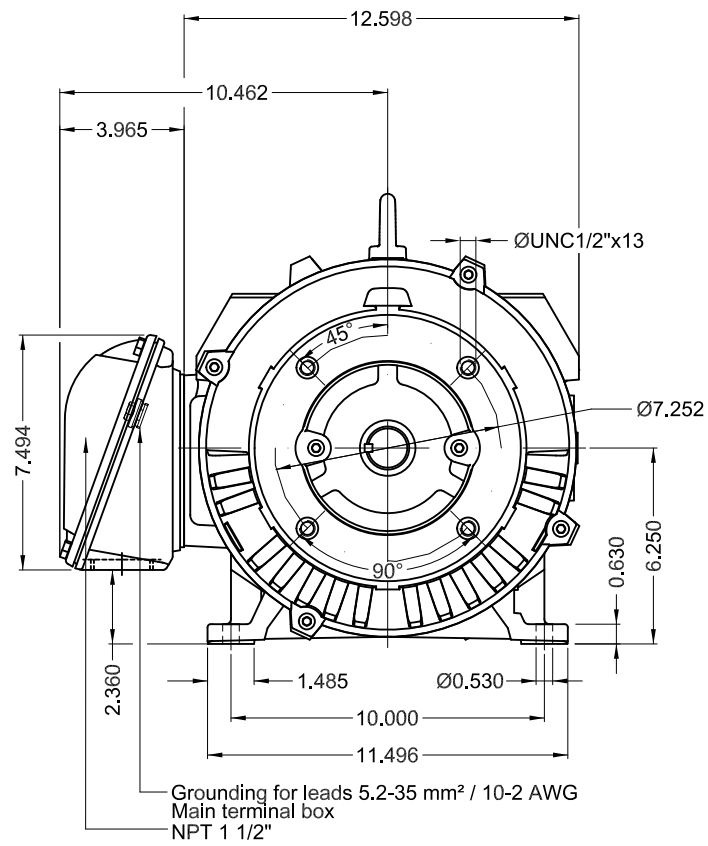


Performance : 415 V 50 Hz 2P IE3

Rated current : 27.0 A
 LRC : 7.4
 Rated torque : 35.6 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 320 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		21 / 21		
Date		14/04/2022		



25 HP 02 Poles 60 Hz

A

1:6

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 CLOSE COUPLED PUMP JP TYPE PREM. FT.					
CHECKED		FRAME 254/6JP IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

Color RAL 5009
 Painting plan 203A
 Mounting NEMA F-1
 Mounting B34R(D)

PREVIEW
 WDD





W40 NEMA
CC029A Premium

Inverter Duty Motor



3PT9
LISTED

IEC 60034-1

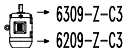
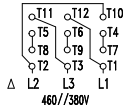
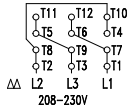
MOD.T01#FOXON



For 60Hz use on PWM, VT 1000:1, CT 3:1, 1.0SF

MODEL 025360T3E256JP-W40
MADE IN BRAZIL
14486321

PH 3	FR 254/6JP	HP(kW) 25.0(18.5)	Hz 60
V 230/460	A 57.6/28.8	RPM 3535	DES B
NEMA NOM EFF 91.7 %	INS. CL. F Δ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.88	SF 1.25	SFA 72.0/36.0
USABLE @208V	63.7 A	SF 1.15	SFA 73.3
20HP 15kW 50Hz 380V 28.2A 2935RPM SF1.00 EFF 91.9% (IE3)	ALT 1000 m.a.s.l.		



MOBIL POLYREX EM
13 g 20000 h

ALT 1000 m.a.s.l. 256 Lbs